



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,791	03/20/2001	Jun-Ichiro Hara	33216	1188

7590 05/28/2003  
Pearne, Gordon, McCoy & Granger  
1200 Leader Building  
Cleveland, OH 44114

EXAMINER	
NGUYEN, VINCENT Q	
ART UNIT	PAPER NUMBER
2858	

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/812,791	Applicant(s) HARA ET AL.	
	Examiner Vincent Q Nguyen	Art Unit 2858	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 12 May 2003.

2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 6 and 11-17 is/are pending in the application.

    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 6 and 11-17 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some    \* c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

        \* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3,4</u> .	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of the species of figure 1 in Paper No. 6 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The Election/Restrictions requirement is thus made FINAL.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 6, 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Theus et al. (5,604,433).

Regarding claim 6 Theus et al. discloses a device comprising (Figure 1) a magnetic field element (1), which outputs a signal in accordance with an applied magnetic field strength; an amplifier (7), which amplifies the output signal of this Magnetic field element (1) and outputs a voltage signal across a pair of output terminals (9, 10); a condenser (6) of which both ends (+, - either 8 or 13 or both 8 and 13) are connected to the pair of the output terminals (9, 10) of said amplifier (7); a switch part (12, 12') which is inserted and makes a connection between one of said output terminals (9, 10) in the pair and one terminal of said condenser (6) and which is closed

by a first period of a signal (S3) (Figure 2) (See also column 5, lines 34) given from an outside of said switch part (12, 12') and is opened by a second period of a signal (P2) (Figure 2) (See also column 6, lines 8-10) given from the outside of said switch part (12, 12') (See element 20); and a pair of an output terminals (Connected 9 and 10 to 13) which outputs the voltages of both ends of said switch (12, 12'), respectively, wherein the polarities of the voltage signals for the pair of the output terminals (9, 10) of said amplifier (8) at the first period of said signal (S1) and at the second period of said second signal are mutually opposite polarities (Column 4, lines 28-30) (P1 and p2 are 180° phase difference, the output is thus opposite polarities).

Regarding claim 11, Theus et al. discloses magnetic field element (1) is a Hall element.

Regarding claim 12, Theus et al. discloses a device comprising (Figure 1) a magnetic field element (1) which outputs a signal in accordance with an applied magnetic field strength; an amplifier (7) which amplifies a signal from this magnetic field element (1), which polarities in a first signal period (S1) and in a second signal period (S2) are mutually opposite (See figure 2), and outputs a voltage signal across a pair of output terminals (9, 10); a condenser (6) of which both ends (+, - of 8 and 10) are connected to the pair of the output terminals (9, 10) of said amplifier (7); a switch part (12, 12') which is inserted and makes a connection between one (Non-inverting + of element 8) of said output terminals (9, 10) in the pair and one terminal (Inverting – of element 8) of said condenser (6), and which is closed at the first signal (Column 5, lines 30-35) period and is opened at the second signal period (Column 6, lines 8-10); and a

pair of output terminals (Connected 9 and 10 to 13) which outputs the voltages of both ends of said switch (12, 12'), respectively.

Regarding claim 15, the claim recites a method read out from the apparatus of claims 6 and 11, thus the claim is rejected as applied to claim 6 and 11.

Regarding claims 13, 16, Theus discloses the magnetic field element (1) is a Hall element.

Regarding claim 14, Theus discloses a switch circuit (20), which switches the voltage, outputted from said magnetic field element (1) to have opposite polarities in a first signal period (P1) and a second signal period (P2) and which outputs the switched voltage.

Regarding claim 17, Theus et al. discloses halting a power source supply (5) to the magnetic field sensor (1) in every constant period (See figure 2).

### ***Conclusion***

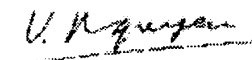
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q Nguyen whose telephone number is (703) 308-6186. The examiner can normally be reached on Mon-Fri 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (703) 308-0750. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Art Unit: 2858

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Vincent Q. Nguyen



May 24, 2003



**N. Le**

**Supervisory Patent Examiner  
Technology Center 2800**